

What is claimed is

1 1. A portable liquid level detector, comprising:
2 a portable casing;
3 a power supply unit disposed in the casing;
4 a sensor coupled to the power supply unit to sense whether
5 a capacitance within a container is changed and to output a
6 enable signal when the capacitance has changed; and
7 a signal device coupled to the sensor that outputs a signal
8 after receiving the enable signal.

1 2. A portable liquid level detector as claimed in claim 1,
2 wherein the signal device is an alarm device.

1 3. A portable liquid level detector as claimed in claim 1,
2 wherein the signal device is a light emission device.

1 4. A portable liquid level detector as claimed in claim 3,
2 further comprising a resistor coupled to the light emission
3 device to limit a current flowing through the light emission
4 device.

1 5. A portable liquid level detector as claimed in claim 3,
2 wherein the light emission device is a light emission diode.

1 6. A portable liquid level detector as claimed in claim 2,
2 wherein the alarm device is a buzzer.

1 7. A portable liquid level detector as claimed in claim 1,
2 wherein the sensor is a capacitive proximity switch.

1 8. A portable liquid level detector as claimed in claim 1,
2 wherein the power supply unit is a battery set.

1 9. A portable liquid level detector as claimed in claim 1,
2 further comprising a switch coupled to the power supply unit to
3 control the electrical conduction between the power supply unit
4 and the sensor.

1 10. A portable liquid level detector, comprise:
2 a portable casing;
3 a battery set deposited in the portable casing;
4 a capacitive proximity switch coupled to the battery set
5 to sense whether a capacitance within a container is changed and
6 to output a enable signal when the capacitance has changed;
7 a light emission diode coupled to the capacitive proximity
8 switch that illuminates after receiving the enable signal;
9 a buzzer coupled to the capacitive proximity switch that
10 sounds after receiving the enable signal;
11 a resistor coupled to the light emission diode to limit a
12 current flowing through the light emission diode; and
13 a switch coupled to the battery set to control a electrical
14 conduction between the battery set and the capacitive proximity
15 switch.

1 11. A method of detecting liquid level in a container,
2 comprising:

3 moving a capacitive proximity switch into proximity of a
4 container contains a liquid; and
5 moving the capacitive proximity switch upward and downward
6 relative to the container until a difference in capacitance is
7 detected.

1 12. The method as claimed in claim 11 wherein the container
2 is nonmetallic, and the step of moving the capacitive proximity
3 switch into proximity of the container brings the capacitive
4 proximity switch into contact with the container.

1 13. The method as claimed in claim 11 wherein the container
2 is metallic, and the step of moving the capacitive proximity
3 switch into proximity of the container brings the capacitive
4 proximity switch close to but not contact with the container.

1 14. A method of detecting a clog jammed in a pipe,
2 comprising:
3 moving a capacitive proximity switch into proximity of a
4 pipe with a clog; and
5 moving the capacitive proximity switch upward and downward
6 relative to the pipe until a difference in capacitance is
7 detected.

1 15. The method as claimed in claim 14 wherein the container
2 is nonmetallic, and the step of moving the capacitive proximity
3 switch into proximity of the pipe brings the capacitive
4 proximity switch into contact with the pipe.

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1 16. The method as claimed in claim 14 wherein the container
2 is nonmetallic, and the step of moving the capacitive proximity
3 switch into proximity of the pipe brings the capacitive
4 proximity switch close to but not in contact with the pipe.